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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* DUANE S. EDWARDS<sup>1</sup>

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Appeal 2016-007062  
Application 12/546,449  
Technology Center 3600

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Before MAHSHID D. SAADAT, JOHN P. PINKERTON, and  
ALEX S. YAP, *Administrative Patent Judges*.

PINKERTON, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant appeals under 35 U.S.C. § 134(a) from the Examiner's Final Rejection of claims 7–13, which constitute all of the claims pending in the application. Claims 1–6 and 14–20 are canceled. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

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<sup>1</sup> Appellant identifies Globys, Inc. as the real party in interest. App. Br. 2.

## STATEMENT OF THE CASE

### *Introduction*

Appellant describes the disclosed and claimed invention as follows:

Embodiments are directed towards enabling product and/or service providers to maximize sales of products, services, and content to their existing customers. In one embodiment, a process, apparatus, and system are directed towards optimizing a selection of offers for any customer touch-point to ensure the provider delivers the best offer to the right customer at the most appropriate time. Offers are optimized not only according to a customer's interests and preferences but also according to revenue and profitability potential using predictive analytics.

Abstract.<sup>2</sup>

Claim 7 is representative and reproduced below:

7. A processor readable storage medium that includes data and instructions for a network device comprising a recommendation engine and an analytic modeling component, wherein the execution of the instructions on a computing device by enabling actions, comprising:

receiving, from a merchant, a request for an offer for a product or service to be presented to a customer of the merchant;

receiving information about a plurality of available offers, including at least one channel constraint, and a predicted revenue for each available offer;

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<sup>2</sup> Our Decision refers to the Final Office Action mailed May 5, 2015 (“Final Act.”); Appellant’s Appeal Brief filed Nov. 11, 2015 (“App. Br.”); the Examiner’s Answer mailed May 11, 2016 (“Ans.”); Appellant’s Reply Brief filed July 6, 2016 (“Reply Br.”); and the original Specification filed Aug. 24, 2009 (“Spec.”).

determining a probability of acceptance of each offer for each of a plurality of channels in which an offer could be presented to the customer using an analytical model from the analytic modeling component to perform comparisons based at least in part on a customer attribute or a context of an offering;

employing the analytical model to determine scores for each of the offers by employing a revenue or profitability maximization mechanism based in part on the probability of acceptance, customer context information, and the received information about each remaining offer; and

in response to the request, providing, to the merchant, an optimal offer, wherein the optimal offer is that offer having a highest score, wherein the optimal offer is presented by the merchant to the customer using at least one channel that includes a display on a computer device or a physical paper presentation.

App. Br. 17 (Claims App'x).

*Rejections on Appeal*

Claims 7–13 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

Claims 7–13 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Ramsey et al. (US 2006/0253309 A1; published Nov. 9, 2006) (“Ramsey”).

ANALYSIS

We have reviewed the Examiner's rejections in light of Appellant's arguments in the Briefs. For the reasons discussed *infra*, we are not persuaded by Appellant's arguments that the Examiner erred in rejecting claims 7–13 under 35 U.S.C. § 101; we are, however, persuaded by

Appellant’s arguments that the Examiner erred in rejecting claims 7–13 under 35 U.S.C. § 102(b).

*Rejection of Claims 7–13<sup>3</sup> under § 101*

In *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347 (2014), the Supreme Court set forth an analytical “framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts.” *Alice*, 134 S. Ct. at 2355 (citing *Mayo Collaborative Svcs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 75–77 (2012)). The first step in the analysis is to “determine whether the claims at issue are directed to one of those patent-ineligible concepts.” *Id.* For example, abstract ideas include, but are not limited to, fundamental economic practices, methods of organizing human activities, an idea of itself, and mathematical formulas or relationships. *Id.* at 2355–57. If, at the first stage of the *Alice* analysis, we conclude that the claim is not directed to a patent-ineligible concept, it is considered patent eligible under § 101 and the inquiry ends. *Rapid Litig. Mgmt. Ltd. v. CellzDirect, Inc.*, 827 F.3d 1042, 1047 (Fed. Cir. 2016).

If the claims are directed to a patent-ineligible concept, the second step in the analysis is to consider the elements of the claims “individually and ‘as an ordered combination’” to determine whether there are additional elements that “‘transform the nature of the claim’ into a patent-eligible application.” *Alice*, 134 S. Ct. at 2355 (quoting *Mayo*, 566 U.S. at 79, 78).

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<sup>3</sup> Appellant argues these claims as a group. See App. Br. 9–16; Reply Br. 7–13. We select claim 7 as the representative claim for this group, and the remaining claims 8–13 stand or fall with claim 7. See 37 C.F.R. § 41.37(c)(1)(iv).

In other words, the second step is to “search for an ‘inventive concept’—*i.e.*, an element or combination of elements that is ‘sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.’” *Id.* (brackets in original) (quoting *Mayo*, 566 U.S. at 72–73). The prohibition against patenting an abstract idea “‘cannot be circumvented by attempting to limit the use of the formula to a particular technological environment’ or adding ‘insignificant postsolution activity.’” *Bilski v. Kappos*, 561 U.S. 593, 610–11 (2010) (internal citation omitted).

In determining whether a process claim recites an abstract idea, we must examine the claim as a whole, keeping in mind that an invention is not ineligible just because it relies upon a law of nature or mathematical algorithm. *Digitech Image Techs., LLC v. Electronics for Imaging, Inc.*, 758 F.3d 1344, 1350 (Fed. Cir. 2014). As noted by the Supreme Court, “an *application* of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection.” *Diamond v. Diehr*, 450 U.S. 175, 187 (1981). The “directed to” inquiry asks not whether “the claims *involve* a patent-ineligible concept,” but instead whether, “considered in light of the specification, . . . ‘their character as a whole is directed to excluded subject matter.’” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016) (internal citations omitted). In that regard, we determine whether the claims “focus on a specific means or method that improves the relevant technology” or are “directed to a result or effect that itself is the abstract idea and merely invoke generic processes and machinery.” *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314 (Fed. Cir. 2016).

Here, the Examiner finds claim 7 is directed to a patent-ineligible concept — an abstract idea “for using algorithms to select and provide an offer to a customer based on information about said customer.” Ans. 4–5. The Examiner finds the claim limitations focus on: (a) receiving a request for an offer for a product or service to be presented to a customer of the merchant; (b) receiving information about a plurality of offers, including a channel constraint; (c) determining a probability of acceptance of each offer for each of a plurality of channels, which the Examiner finds is “using an algorithm [or mathematical formula] to made a determination,” and as such “is an abstract idea;” (d) employing an analytical model to determine scores for each of the offers, which the Examiner finds is also an algorithm or mathematical formula; and, (e) in response to the request, providing an optimal offer, the one with the highest score, using at least one channel. *Id.* at 5–6. The Examiner also finds that the claim limitations, considered individually and in combination, do not contain an inventive concept to transform the claimed abstract idea into patent-eligible subject matter because “the claims simply instruct the practitioner to implement the abstract idea with ‘routine, conventional activities’ using general purpose computing devices which is insufficient to transform the patent-ineligible abstract idea into patent-eligible subject matter.” *Id.* at 8.

Regarding step one of Alice, we agree with the Examiner, and conclude, that claim 7 is directed to the abstract idea of using mathematical formulas or algorithms to select and provide an offer to a customer based on information about the customer. As recited in claim 7, after receiving a request for an offer for a product or service, the limitations of claim 7 focus on obtaining information or data about available offers, processing the

information using mathematical formulas to determine “a probability of acceptance” and “scores for each of the offers,” and outputting an optimal offer having a highest score. It is well established that data analysis and algorithms are abstract ideas. *See, e.g., Alice*, 134 S. Ct. at 2355; *Parker v. Flook*, 437 U.S. 584, 589, 594–95 (1978) (“Reasoning that an algorithm, or mathematical formula, is like a law of nature, *Benson* applied the established rule that a law of nature cannot be the subject of a patent”); *Gottschalk v. Benson*, 409 U.S. 63, 71–72 (1972). Thus, claim 7 is directed to an abstract idea because it is focused on collecting information, processing the information by mathematical algorithms, and presenting the results. *See Electric Power Group, LLC v. Alstom S.A.*, 830 F.3d 1350, 1353–54 (Fed. Cir. 2016) (“The advance they purport to make is a process of gathering and analyzing information of a specified content, then displaying the results, and not any particular assertedly inventive technology for performing those functions.”). As discussed *infra*, Appellant argues claim 7 is directed to “automated operations of computer systems to significantly improve activities.” App. Br. 14; Reply Br. 8. We are not, however, persuaded by this argument because “the focus of the claims is not on such an improvement in computers as tools, but on certain independently abstract ideas that use computers as tools.” *See Electric Power*, 830 F.3d at 1354.

Regarding step two of *Alice*, Appellant argues that, even if claim 7 is directed to an abstract idea, “the Office has failed to satisfy its burden of establishing that the claims do not recite significantly more than such an abstract idea.” App. Br. 16. We are not persuaded by Appellant’s argument, but instead agree with the Examiner’s finding that “the limitations do not transform the abstract idea that they recite into patent-eligible subject matter



because the claims simply instruct the practitioner to implement the abstract idea with ‘routine, conventional activities’ using general purpose computing devices which is insufficient to transform the patent-ineligible abstract idea into patent-eligible subject matter.” Ans. 8; *see Alice*, 134 S. Ct. at 2358 (“[T]he mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention. . . . Stating an abstract idea while adding the words ‘apply it’” is not enough for patent eligibility) (quoting *Mayo*, 566 U.S. at 72 (internal quotation marks omitted)). Thus, considering the features of claim 7, individually and as an ordered combination, we find there are no additional elements that transform the nature of the claim into a patent-eligible application. *Alice*, 134 S. Ct. at 2355.

To overcome *Alice*, Appellant presents several arguments. First, Appellant argues that “[i]n an analogous manner to subject matter of the recent *Veracode*<sup>[4]</sup> and *Trading Technologies*<sup>[5]</sup> cases, the pending claims” are directed to computer-implemented improvements to existing techniques and “recite using automated operations of computer systems to significantly improve activities that would be extremely difficult or impossible to perform manually.” App. Br. 14; Reply Br. 8. This argument is unpersuasive because it is conclusory and unsupported by specific analysis of the technology in these cases and any persuasive evidence or argument concerning any similarities of such technology with the subject matter of

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<sup>4</sup> Appellant did not provide a citation to this case, but we believe the case is *Veracode, Inc. v. Appthority, Inc.*, 137 F.Supp.3d 17 (D. Mass. 2015).

<sup>5</sup> Appellant did not provide a citation to this case, but we believe the case is *Trading Techs. Int’l, Inc. v. CQG, INC.*, No. 2016-1616, 2017 WL 192716 (Fed. Cir. Jan. 18, 2017).

claim 7. Appellant argues claim 7 is directed to automated functionality for improving activities that would be extremely difficult or impossible to perform manually, but does not explain how such automation is based on improvements to computer technology, rather than the mathematical algorithms to determine “a probability of acceptance” and scores for the offers using the “analytical model.” Unlike *Veracode*, Appellant has not provided persuasive evidence or argument that the process of claim 7 “improv[ed] upon the unique properties and complex capacities of computer technology.” Reply Br. 8; *see Veracode*, 137 F.Supp.3d at 53. Regarding *Trading Technologies*, the Federal Circuit affirmed the district court’s holding that the claims were not directed to an abstract idea because the claims required “a specific, structured graphical user interface paired with a prescribed functionality directly related to the graphical user interface’s structure that is addressed to and resolves a specifically identified problem in the prior state of the art.” *Trading Techs.*, No. 2016-1616 at \*3. Here, the claims do not recite a graphical user interface and, therefore, are readily distinguishable from the claims in *Trading Technologies*. Similarly, Appellant has not provided any analysis of the similarities of the technology in any of the other cases<sup>6</sup> it cites with the subject matter of claim 7. *See* App. Br. 13; Reply Br. 9–10.

Second, Appellant argues there is no supporting evidence in the record that the subject matter of claim 7 qualifies as an abstract idea and

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<sup>6</sup> *DDR Holdings, LLC, v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014); *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327 (Fed. Cir. 2016); and, *Bascom Global Internet Services, Inc. v. AT&T Mobility LLC*, 827 F.3d 1341 (Fed. Cir. 2016).

“thus the alleged abstract idea of the pending claims is merely an unsupported opinion that is insufficient to render the claims unpatentable.” App. Br. 15. Contrary to Appellant’s assertions, neither *Alice*, nor the Board’s holding in *Ex Parte Renald Possion*, Appeal No. 2010-011084 (PTAB Feb. 27, 2015), stands for the proposition, that the Examiner must provide evidentiary support in every case before a conclusion can be made that a claim is directed to an abstract idea. There is no such requirement. See, e.g., para. IV “July 2015 Update: Subject Matter Eligibility” to 2014 Interim Guidance on Subject Matter Eligibility (2014 IEG), 79 Fed. Reg. 74618 (Dec. 16, 2014) (“The courts consider the determination of whether a claim is eligible (which involves identifying whether an exception such as an abstract idea is being claimed) to be a *question of law*. Accordingly, courts do not rely on evidence that a claimed concept is a judicial exception, and in most cases resolve the ultimate legal conclusion on eligibility without making any factual findings.”) (Emphasis added). Further, the Office did not change the standard in the May 4, 2016 Memorandum, *Formulating a Subject Matter Eligibility Rejection and Evaluating the Applicant’s Response to a Subject Matter Eligibility Rejection*. Evidence may be helpful in certain situations where, for example, facts are in dispute. However, it is not always necessary, and it is not necessary in this case.

Third, Appellant argues the Examiner failed to follow the May 2016 Subject Matter Eligibility Update Memorandum by not citing a case (1) in which analogous subject matter has been found to be non-statutory, except for generic references to SmartGene and Cyberfone, and (2) in which analogous subject matter for the combination of elements of claim 7 has been found to be merely well-understood and routine activities of a generic

computer. Reply Br. 11–13. We are not persuaded by this argument because the USPTO guidelines are not legal requirements. *Cf. In re Fisher*, 421 F.3d 1365, 1372 (Fed. Cir. 2005) (“The MPEP and Guidelines ‘are not binding on this court’”) (citations omitted).

Fourth, Appellant argues the Examiner has failed to provide any support for the proposition that the pending claims recite the only possible method of “‘providing an offer to a customer based on information about said customer,’ so as to provide a monopoly that preempts use of such an alleged abstract idea in all possible fields.” App. Br. 15; Reply Br. 13. We are not persuaded by this argument. “[W]hile preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility.” *FairWarning IP, LLC, v. Iatric Sys., Inc.*, 839 F.3d 1089, 1098 (Fed. Cir. 2016) (quoting *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015); *see also OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1362–63 (Fed. Cir. 2015), cert. denied, 136 S. Ct. 701, 193 (2015) (“[T]hat the claims do not preempt all price optimization or may be limited to price optimization in the e-commerce setting do not make them any less abstract.”). Further, “[w]here a patent’s claims are deemed only to disclose patent ineligible subject matter under the *Mayo* framework, as they are in this case, preemption concerns are fully addressed and made moot.” *Ariosa*, 788 F.3d at 1379.

Accordingly, we sustain the Examiner’s rejection of claim 7 under § 101, as well as dependent claims 8–13, which are not separately argued.

*Rejection of Claims 7–13 under § 102(b)*

Appellant argues that Ramsey does not anticipate claim 7 because “Ramsey fails to disclose ‘determining a probability of acceptance of each

offer for each of a plurality of channels.”<sup>7</sup> App. Br. 10 (emphasis added); Reply Br. 4. Appellant argues that the portions of Ramsey relied on by the Examiner, paragraphs 23, 33, and 34, fail to disclose this limitation. App. Br. 10. Appellant further argues that “Ramsey lacks any idea that different channels could provide different probabilities of acceptance for a particular customer.” Reply Br. 6. The Examiner finds that “Ramsey specifically states that acceptance probability scores and/or rankings are computed for each of a plurality of channels for the offer.” Ans. 2–4 (citing Ramsey ¶¶ 23, 33, 34).

“A rejection for anticipation under section 102 requires that each and every limitation of the claimed invention be disclosed in a single prior art reference.” *See In re Buszard*, 504 F.3d 1364, 1366 (Fed. Cir. 2007) (quoting *In re Paulsen*, 30 F.3d 1475, 1478–79 (Fed. Cir. 1994)). Here, we are persuaded by Appellant’s argument that the Examiner errs in finding Ramsey anticipates claim 7 because, although paragraph 23 of Ramsey specifically teaches computing “acceptance probability scores,” the Examiner has not shown or explained that paragraph 23, or the cited portions of Ramsey, describe computing acceptance probability scores “for each of a plurality of channels,” as recited in claim 7.<sup>8</sup>

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<sup>7</sup> Although Appellant makes other arguments regarding this rejection, we need not address them because we find this argument is dispositive.

<sup>8</sup> In the event of further prosecution, we leave it to the Examiner to determine whether it would have been obvious to one of ordinary skill in the art, at the time of the invention, that a probability of acceptance of each offer is determined “for each of a plurality of channels.”

Thus, we do not sustain the Examiner's rejection under § 102(b) of independent claim 7, as well as dependent claims 8–13.

#### DECISION

We affirm the Examiner's decision rejecting claims 7–13 under 35 U.S.C. § 101.

We reverse the Examiner's decision rejecting claims 7–13 under 35 U.S.C. § 102(b).

Because we have affirmed at least one ground of rejection with respect to each claim on appeal, the Examiner's decision is affirmed. *See* 37 C.F.R. § 41.50(a)(1).

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1).

AFFIRMED